

## IN THE CLAIMS

What is claimed is:

- 1   **1.**     A method, comprising the steps of:
- 2                 bending a substrate by applying a force with a movable chuck portion
- 3                 to orient essentially all of a surface of the substrate at a predetermined angle
- 4                 with respect to an input source.
- 1   **2.**     The method of claim 1, wherein:
- 2                 the substrate comprises a silicon wafer having a diameter of at least
- 3                 about eight inches.
- 1   **3.**     The method of claim 1, wherein:
- 2                 the force comprises an electrostatic force generated by a potential
- 3                 difference between the substrate and the movable chuck portion.
- 1   **4.**     The method of claim 1, wherein:
- 2                 the movable portion comprises a split electrode electrostatic chuck.
- 1   **5.**     The method of claim 1, wherein:
- 2                 bending the substrate includes receiving the substrate in a recess
- 3                 having a concave shape.

1 6. The method of claim 5, wherein:

2 bending the substrate includes introducing a curvature into the  
3 substrate selected from the group consisting of spherical, conical and  
4 cylindrical.

1 7. The method of claim 1, wherein:

2 applying the force with a movable chuck portion includes attracting  
3 the substrate to the movable portion with an electrostatic force when the  
4 substrate has an essentially unbent shape, and moving the movable chuck  
5 portion with respect to a stationary substrate receiving portion.

1 8. The method of claim 1, wherein:

2 applying the force with a movable chuck portion includes moving the  
3 movable chuck portion with respect to a stationary substrate receiving portion  
4 to bend the substrate.

1 9. The method of claim 8, further including:

2 attracting the substrate receiving portion to a curved stationary  
3 substrate receiving portion with an electrostatic force.

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1   **10.**   A method of processing a integrated circuit wafer, comprising the steps of:  
2               placing a wafer over a concave chuck portion ;  
3               applying a force to the wafer to conform to the concave chuck  
4               portion;  
5               maintaining the wafer in the deformed shaped as the wafer is  
6               processed with respect to an input source.

1   **11.**   The method of claim 10, wherein:  
2               placing the wafer over the concave portion includes attracting the  
3               wafer with an electrostatic force to the concave portion.

1   **12.**   The method of claim 12, wherein:  
2               attracting the wafer includes applying a voltage to an electrostatic  
3               chuck within the concave portion.

1   **13.**   The method of claim 10, wherein:  
2               placing the wafer over the concave portion includes orienting the  
3               wafer in a first direction; and  
4               the force is applied with a movable chuck portion at an angle greater  
5               than 45° with respect to the first direction.

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1   **14.**   The method of claim 13, wherein:

2               placing the wafer over the concave portion includes contacting a  
3   stationary chuck portion with a first side of the wafer; and

4               the force is applied by a movable portion to a second side of the wafer  
5   that is opposite to the first side.

1   **15.**   The method of claim 13, wherein:

2               placing the wafer over the concave portion includes contacting a  
3   stationary chuck portion with a first side of the wafer; and

4               the force applied by the movable portion is an electrostatic force that  
5   attracts the first side of the wafer to the movable portion.

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1   **16.**   A system, comprising:  
2                   an input source for processing the substrate according to a  
3                   predetermined manufacturing step;  
4                   a chuck system having  
5                   a substrate receiving surface that receives the substrate in an  
6                   essentially non-deformed shape, and  
7                   a force applying portion that applies an attractive force  
8                   between the substrate and the chuck system that maintains the  
9                   substrate in a deformed shape.

1   **17.**   The system of claim 16, wherein:  
2                   the input source comprises an ion implantation source.

1   **18.**   The system of claim 16, wherein:  
2                   the substrate receiving surface has a type of curve selected from the  
3                   group consisting of spherical, conical, and cylindrical.

1   **19.**   The system of claim 16, wherein:  
2                   the force applying portion includes a movable portion that moves with  
3                   respect to the substrate receiving surface to change the substrate from the non-  
4                   deformed shape to the deformed shape.

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1   **20.**   The system of claim 19, wherein:  
2                   the force applied by the movable portion is selected from the group  
3           consisting of electrostatic force and mechanical force.

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